Prairie Update

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A Dream Job

In 2003, Saskatchewan Watershed Authority summer students Corie White and Katherine Brewster studied Piping Plovers at Chaplin Lake. In 2004, White is continuing the study as part of her masters thesis through the University of Regina. Brewster, who is also working on her biology degree through the University of Saskatchewan, is doing other bird surveys for the Watershed Authority in the Alameda area. The following includes some of their "Chaplin experiences."

Walking along the saline mud flats around Chaplin Lake, with binoculars and a notebook in hand, Corie White chooses her path carefully.

While she is here to study the Piping Plover, an endangered shorebird species, she is aware that Plover chicks can become "trapped" in the prints and tracks left by humans and large animals. And she could be slowed down too.

"The ground is different here. It's really soft even though it will be crusted on top," she said, adding it may appear dry, white and cracked – but it's wet underneath.

Katherine Brewster, who worked with White in 2003, chuckled that at first adapting to these field conditions led to a few fleeting moments of "self-preservation."

"I've almost sunk down to my hips!" she said, adding staff at the Chaplin Nature Centre had a garden hose "waiting" for her muddy arrival at day's end.

But for White and Brewster, being taken under the wing of this community and having others take an interest in their work simply added to the rewards of the job.

"They're like our surrogate moms over there at the Centre," said Brewster, adding "They told us to check in when we're coming off the lake – or at least call to let them know we're okay."

Brewster agreed. "It's a dream job. I couldn't have asked for anything more than being outside, working with an endangered species and helping to make a difference."

And being invited to speak to a group of tourists is nothing short of invigorating.

"It was awesome! I had a blast," said Brewster. "Because I knew where the Plover chicks were, I was able to actually catch one and show them. And I've never seen people more thrilled about anything. Their eyes just lit up. They were just so excited. It's contagious. I just went home having the best day ever."

On average, White said there are 100 birds at Chaplin Lake every year. In 2001, there were 67 nests followed by 36 in 2002; 41 in 2003 and 57 in 2004.

Monitoring of these nests is quite intensive. Piping Plovers generally lay

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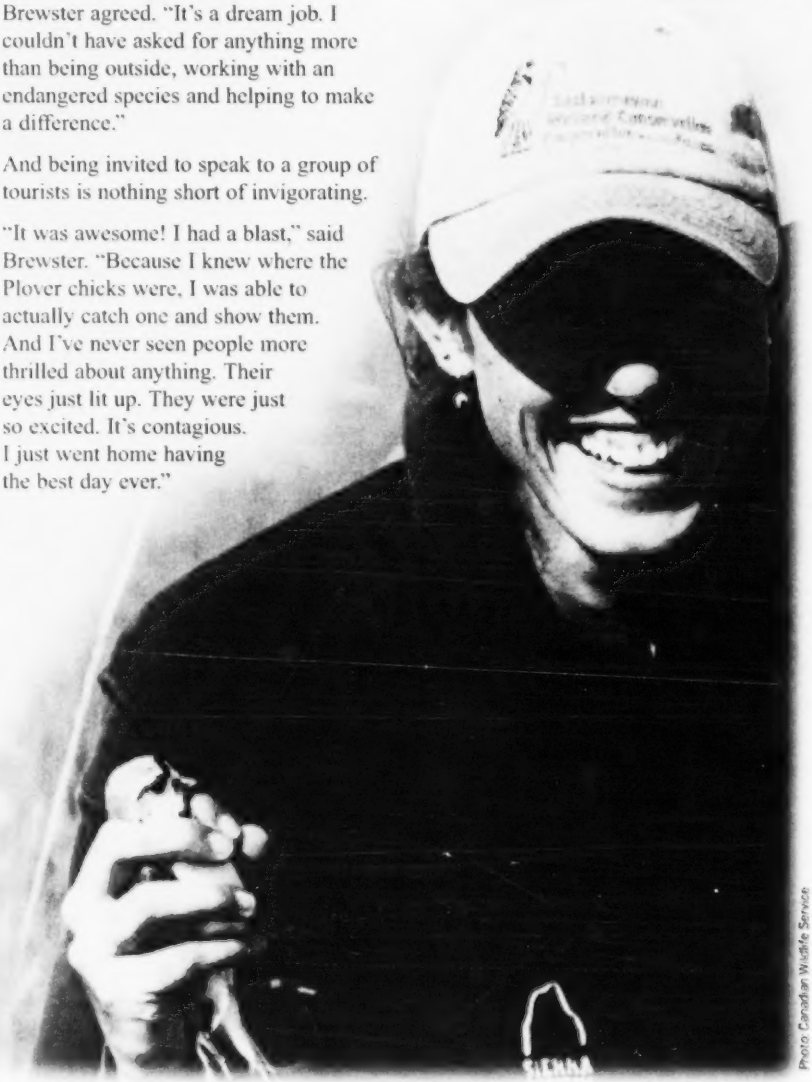

Corie White

Photo Canadian Wildlife Service

A Dream Job (continued from front page)...

their eggs over a period of five to seven days. This is followed by a 28 day incubation period. In 18 to 25 days, the young birds can fly.

"We had calendars like you wouldn't believe," said Brewster, adding they numbered every nest and kept records of when eggs were laid. They regularly checked to see if nests were abandoned, predated or still incubating.

"We try to pinpoint the hatch dates so we can try and get there within a couple of hours. Otherwise, the chicks are a challenge to catch," said White, adding initial measurements are followed up with records of each chick's activities throughout the season.

Other duties for this study include changing the video tapes and batteries used for video monitoring. Infrared video cameras, camouflaged as rocks, serve to record any nest predation as well as nesting behavior.

While they may have everything on tape —Brewster concluded she did find herself "going through empty nest syndrome" when her time at Chaplin was over.

"They kind of become little families of yours. Last summer we had 41 families out here that we got to watch from start to finish—and that was rewarding. When the birds take flight you feel proud. You feel like a parent."

(L-R) Katherine Brewster and Corie White

On-Farm Pasture Planning

Summer is in full swing and I know all of you are busy—but we still wanted to get you thinking about a new service that we can offer: we are looking for Voluntary Stewards who are interested in completing a free *On-Farm Pasture Plan*—a tool producers can use to plan grazing and pasture use.

To complete the plan, one of our agrologists will take a ground-level look at your pastures. Then, they will prepare a set of laminated aerial photo-maps of your grazing land (native, tame, annual) and any other land you plan to have in grass in the future. Next, we'll sit down with you to draw in fencelines, water sources, and the grazing capacity for each pasture. These maps will be yours to keep.

Your *On-Farm Pasture Plan* will provide you with a bird's-eye view of your operation, and should help to identify areas where productivity or utilization could be improved, and how to protect sources of water.

Once your Plan is complete, we may be able to assist you with fulfilling a need that has been identified on your operation—such as setting up a grazing rotation or installing a remote watering system.

Some producers who have already completed *On-Farm Pasture Plans* commented that their Plans helped them visualize how to improve problem areas. Others said that their Plan helped them see how management changes that they were contemplating would affect their operation.

If you would like to participate, or if you have any questions, please call me, or the Saskatchewan Watershed Authority representative near you (see back page).

Julie Korol

Prairie Dreams

At 10 years of age, Ryan Newton knows he wants to raise cattle.

And he also knows where.

Standing on the crest of a hill overlooking Williams Marsh south of Central Butte, Ryan is wishful about staying on the family farm.

"I'd put a house out here," he says.

Surrounding the 300 acre marsh below, a ring of hills blanketed in native prairie grasses beckon to be explored. It's wide open—and it's "private."

At a young age, Ryan has already come to understand the importance of stewardship and how this pasture came to be such an oasis. Tucked away at home, he's saved a 1997 Western Producer newspaper clipping that shows him at the age of four, standing next to his dad.

It's an article about grass management.

Standing next to his dad, Kirk Newton, for yet another interview in the same pasture last summer, he listens carefully as the story is told once again. Sharing his dad's pride in the operation, he silently makes sure that no details are missed.

"Some people think I'm crazy leaving this much grass until next year—but it's worth it," says Kirk. "But those are the ones who don't understand—and I once didn't either—how native plants work."

Since Kirk learned a few secrets of the prairie and greatly improved the condition of his pasture, it has caught the eye of livestock producers and conservationists alike. Because there's so much grass, some people assume it's not being grazed and call with offers to rent or buy it.

For organizations such as Ducks Unlimited Canada (DUC) and the Saskatchewan Watershed Authority (SWA), a project such as Newton's is one to showcase. It demonstrates that land can be managed to maximize production and improve wildlife habitat.

With support from the Canadian Adaptation and Rural Development in Saskatchewan (CARDS) program and SaskPower, they are highlighting this operation as a "stewardship success story" in communication pieces and landowner extension materials.

"My calves are heavier on that pasture," says Kirk. "And there's tons of grass down there. We went through a year-and-a-half of drought and I never cut my rates back at all."

Surrounding Williams Marsh, Kirk has nine quarter-sections of native prairie fenced into eight paddocks. Using a rest-rotation system of moving his cows regularly, he runs close to 60 cow-calf pairs here—although he may increase those numbers in 2004.

"I try to rest one paddock every year. I call it my insurance policy," says Kirk.

For Ryan, that insurance is important too. He kept track of his hours and bought his own heifer. While his dad was proud of his ability to pick the best heifer out of the herd—Ryan figures he's got his eye on something even better.

And that's a healthy native prairie pasture to put it in.

Editor's Note: *To study the correlation between grassland songbirds and range condition, biologists and agrologists from the Saskatchewan Watershed Authority used Kirk's pasture as a monitoring site in the mid 90s.* *For more information about Williams Marsh, see page 4.*

Focus on: Moose Jaw River Watershed and

Kirk Newton of Central Butte implemented a rest-rotation grazing system in partnership with Ducks Unlimited Canada. Nine quarters of native prairie were divided into eight paddocks while four-and-a-half miles of suspension fence were used around Williams Marsh. This marsh is one of the largest water bodies on the 'Thunder Creek System' which runs from Riverhurst all the way down to Caronport and includes a series of water bodies that serve as breeding and staging areas for many waterfowl and shorebirds. As part of Kirk's project, a network of ponds, spillways and dams was created around the marsh to enhance wildlife habitat. To provide limited livestock access, three new dugouts were made and existing springs were fenced. Kirk says, "It's perfect because the cows always have fresh water. Now, with the way it's been fenced, it's like watering out of a trough."

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Clem Millar has been involved in preserving nesting habitat for shorebirds around Chaplin Lake for many years. As chairman of the Chaplin Tourism Committee he has spent countless hours developing plans to make Chaplin into an important birding area. Now, as an anchor site on Saskatchewan's Bird Trail, it's a place where visitors can stop to learn about shorebirds. Clem's tireless dedication has put Chaplin on the map.

Chaplin Lake is fast becoming known for its hemispheric value to shorebirds through the Western Hemisphere Shorebird Reserve Network (WHSRN). This lake area, spanning over 6,000 hectares (15,000 acres), is the second largest inland saline water body in Canada. More than 30 species of shorebirds—some endangered—either stop to rest and refuel during their migratory journey, or nest and raise their young here each summer.

The 3,000 sq. foot Chaplin Nature Centre, which features a large mural of the area, has hosted more than 150,000 visitors since its inception in 1997. To welcome visitors to the centre, local farmers have built replicas of the American Avocet and the endangered Piping Plover. A short range FM radio station (103.1), broadcasting about 15 kilometres around Chaplin Lake, also draws travelers in.

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Surrounding Area

At Moose Jaw, the Wakamow Valley Authority is relying on biological methods to control a perennial weed called leafy spurge (sheep and the release of spurge eating beetles). While the sheep eat plant tops and reduce seed production, the beetles work by laying their eggs below the soil. The larva that hatch, feed on the roots of the plant. Unlike some chemical controls that may contaminate groundwater, this combination of sheep and beetles has proven to be "environmentally and visitor friendly." Since 1981, when Wakamow was established, conservation activities and public education activities have brought the 365-hectare river valley closer to its original state. This has been done with tremendous support from volunteers, public donors, the city, the province and local rural municipalities.

At right, Karyn Mossing, a landowner along Moose Jaw Creek, looks at leafy spurge during a recent workshop at Wakamow. This spring, she consulted with Watershed Authority staff who conducted a noxious weed survey and riparian health assessment on her property.

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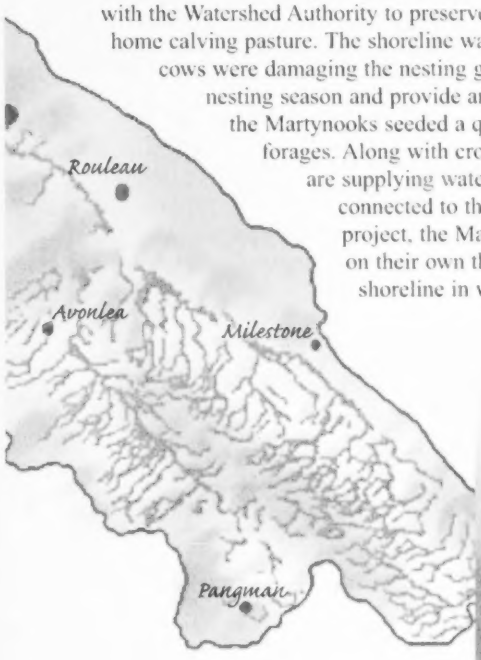
Andy, Jacqui and Grace Martynook, who have a mixed operation at Dunkirk, raise commercial and purebred Black Angus cattle. They have been working with the Watershed Authority to preserve the shoreline of a large slough in their home calving pasture. The shoreline was a haven for Piping Plovers and the cows were damaging the nesting grounds. To move the cows out before nesting season and provide an alternative for early season grazing, the Martynooks seeded a quarter of adjacent farmland to tame forages. Along with crossfencing it into four paddocks, they are supplying water to this area with a shallow pipeline connected to the yardsite well. Since they did this project, the Martynooks have made additional changes on their own that allow them to keep the cattle off the shoreline in winter too.



6 ... near Ceylon in the Missouri Coteau

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Keith and Linda Kaufmann operate the South View Ranch Inc. near Ceylon in the Missouri Coteau. Because important Piping Plover habitat has been identified on their land, the Watershed Authority was able to assist them with a demonstration project that would reduce grazing pressure on these areas. The Kaufmanns developed a stock watering system that makes use of about four miles of high density plastic pipeline to service their existing rotation. Now, pastures containing Piping Plover habitat will be rested during the nesting season.

Moose Jaw River Watershed Stewardship Association

Although they've only been together for over a year, members of the Moose Jaw River Watershed Stewardship Association have caught the attention of others in the province's "watershed community."

Jennifer Nelson, who initially coordinated the group, said "I think it's moving fast."

"We first met in January 2003 in Avonlea. We had rural municipalities, government agencies, villages, cities, businesses, golf courses, parks and recreation areas involved—and it grew. Since then, a couple of conservation areas and irrigation groups have also come on side."

The Moose Jaw River Watershed, which encompasses approximately 3600 square miles, is bound by the communities of Central Butte to the northeast and Yellow Grass to the southwest. It includes Avonlea Creek, Brokenshell Creek, Thunder Creek and several smaller tributaries.

Nelson said the groundwork for creating an association in this region was done through the Saskatchewan Watershed Authority, with funding from Agriculture Canada's Canadian Adaptation and Rural Development in Saskatchewan. Additional support has also been provided by Fisheries and Oceans Canada.

"I was hired as a coordinator in October 2002 and spent most of my time, until January, talking to people to find out if there was any interest and what some of the issues might be," said Nelson, who later became an Assistant Resource Planner within the Watershed Authority.

Since the Authority has objectives to create a "source water protection management plan," and this association is so proactive—the group was asked to participate in developing a management plan for the Moose Jaw River Watershed. Nelson said that in doing so, they would actually be involved in identifying threats to their source water and "what needs to be done, where and how."

To develop a plan, the association would come up with recommendations, developed with support from a technical committee. Recognizing that various interests and concerns could be accommodated through this approach, the association agreed to participate in April 2003.

"But in order to do that—and keep their group moving along when they have 20 to 30 people at a meeting, they decided to create an Executive Board to work on the management plan," said Nelson, adding the eight member board includes nine alternates from other organizations.

To date, they have compiled planning objectives to reduce erosion and sedimentation; meet surface water quality objectives for protection of aquatic life; increase awareness about the importance of properly decommissioning out of service wells; and explore the feasibility of creating reservoirs. They also compiled a draft list of 27 recommendations for addressing sedimentation and erosion.

To implement these initiatives and possibly become incorporated as a non-profit organization, Nelson said the association is trying to secure more funding.

"They're very enthusiastic," said Nelson, adding "The group wants to meet even more frequently."

In the meantime, they also hope to bring stakeholders closer together through other activities including a watershed tour—and tour of stewardship demonstration projects developed by landowners.

Nuttall's Atriplex

(Atriplex nuttallii) is a small shrub that grows from a very deep taproot. It may lay quite flat to the ground or stand up to 75 cm in height. The plant is eaten by livestock and game, especially in fall and winter. Nuttall's atriplex is commonly found on eroded slopes and badlands, as well as saline and alkaline soils and clays.

Decommissioning Wells

What can happen when old wells aren't used anymore?

Just ask Nolan Shaheen, Director of Groundwater Management for the Saskatchewan Watershed Authority in Moose Jaw. During watershed planning sessions in several communities, Shaheen said, "It's both a water quality protection issue and a public safety issue.

"We've all heard stories about kids falling in wells, especially some of the old hand dug ones that have a large diameter," said Shaheen, adding he knows a farmer "who found out what happens when you're travelling six miles-per-hour in a combine, with 200 bushels of grain in the hopper—and you hit a six foot diameter well with a front wheel and drop it straight in. He had $20,000 damage to that combine."

Also citing Manitoba's Red River Flood as an example, Shaheen added, "When farm sites were submerged, they were able to notice locations of some of the larger diameter wells by the whirlpools over top. You can imagine anything that was in that flood water … literally swirling down into those aquifers."

"When we put a well in the ground, we bypass all the protective mechanisms of that aquifer. This includes the physical barrier of glacial tills and clays as well as chemical and biological processes that slow down and reduce the concentration of contaminants."

When people simply walk away and "abandon" wells, there is potential for future problems—especially in areas susceptible to runoff. Over time, well caps and casings will deteriorate.

"Decommissioning," however, is the conscious effort to properly seal a well.

"The nice thing is, it's not rocket science. It's pretty straight forward," said Shaheen. "There is no one solution to decommissioning a well. Ideally, you're going to vary your methodology a little bit depending on the well type and geology."

He said one of the materials commonly used is a clay, called bentonite, which is essentially volcanic ash that "just swells up and forms an impermeable seal once any moisture hits it."

To decommission a "bored" well, the casing is first back filled with clean sand or gravel. For a "drilled" well, which has a smaller diameter, a special pump is used to pressure grout a slurry of bentonite into the casing.

In each situation, the top eight to ten feet of casing is then removed. The bottom of this excavation, across the top of the well, is sealed with a bentonite plug. Clay or glacial till, used as backfill to finish the job, is mounded to prevent seasonal pooling of water around the well head.

Shaheen concluded interest in wells is growing—especially from lenders and real estate agents who are cautious about the potential liabilities of a property. Since the 60s, when the *Groundwater Conservation Act* required submission of drilling records, more than 110,000 well and test hole records have been filed. The public can access this information by contacting the Watershed Authority.

In the meantime, the Authority is working closely with the Prairie Farm Rehabilitation Administration and the Saskatchewan Groundwater Association, which represents the water well drilling industry.

"We do have regulations—but we would prefer the approach of trying to educate the public on the need to do this for their own benefit."

Hello Voluntary Stewards!

We hope you've enjoyed our look at stewardship activities in the Missouri Coteau and Moose Jaw River Watershed. In particular, we hope our cover story gave you a glimpse of a "day in the life" of an avian biologist. While this story focused on shorebirds at Chaplin Lake, we also have summer students who are doing duck or grassland bird surveys. If you happen to meet one in your area — you'll know you're talking to a very dedicated individual!

At this time, we would also like to acknowledge voluntary stewards who have done Piping Plover projects with us. With support from the Government of Canada Habitat Stewardship Program for Species at Risk, approximately 25 landowners have become involved in areas including Willow Bunch, Fife Lake, Lake Diefenbaker, Edna Lake, Marjorie Lake and Manitou Lake.

In addition, a number of landowners in the Moose Jaw River Watershed have also done projects to conserve Burrowing Owl habitat. If you're ever passing through the City of Moose Jaw, we encourage you to stop by the Saskatchewan Burrowing Owl Interpretive Centre.

If you would like more information about these birds, check Volume II — Spring 2001 issue of the Prairie Update. Back issues of our newsletter, as well as maps of different watersheds, can be viewed on our website at www.swa.ca.

The Editor

Share your ideas!

If you have any comments or ideas about this newsletter, please contact Tracy Harrison at 787-8043 or email: tracy.harrison@swa.ca.

For specific information about the Prairie Stewardship Program, please contact Jennifer Lohmeyer at 787-8707 or email: jennifer.lohmeyer@swa.ca.

Photo: Larry Easton

Agriculture and Agri-Food Canada through the Agriculture Institute of Management in Saskatchewan, Inc., Agricultural Environmental Stewardship Initiative, Canada-Saskatchewan Agricultural Green Plan Agreement, Canadian Adaptation and Rural Development in Saskatchewan, Canadian Agricultural Rural Communities Initiative, National Soil and Water Conservation Program and Prairie Farm Rehabilitation Administration

California Waterfowl Association, Canada Millennium Partnership Program, Canadian Wildlife Service and World Wildlife Fund (Endangered Species Recovery Fund), Department of Fisheries and Oceans Canada, Ducks Unlimited Canada, Environment Canada through Eco-ACTION, Government of Canada Habitat Stewardship Program for Species at Risk, National Fish and Wildlife Foundation (U.S.), Native Plant Society of Saskatchewan, Nature Conservancy of Canada, Nature Saskatchewan, Nebraska Game and Parks Commission, North American Wetlands Conservation Council, Partners FOR the Saskatchewan River Basin, Pheasants Forever, Inc., (U.S.), Prairie Conservation Action Plan, Saskatchewan Agriculture, Food and Rural Revitalization, Saskatchewan Energy, Saskatchewan Environment through the Fish and Wildlife Development Fund, SaskPower- Shand Greenhouse, Sask Water, TD - Canada Trust Friends of the Environment Foundation, Tennessee Wildlife Resource Agency, The Nature Conservancy (U.S.), Wildlife Habitat Canada, World Wildlife Fund, Wyoming Game and Fish Department

Coming Events

For information please contact the following:

Moose Jaw
Julie Korol at 694-3101

Regina
Etienne Soulodre at 787-0661

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